

List of Contents

NUMBER 1

Ram Rachamadugu and Qiang Tu	1	Period batch control for group technology—an improved procedure
C. S. Sung and S. K. Lim	9	A scheduling procedure for a general class of resource-constrained projects
H. A. Eiselt, C.-L. Sandblom and C. Barnsley	19	A computational investigation into shapes of polyhedra
Kai A. Olsen, Per Sætre and Anders Thorstenson	29	A procedure-oriented generic bill of materials
Zhao Xiaobo and Katsuhisa Ohno	47	Algorithms for sequencing mixed models on an assembly line in a JIT production system
Vedran Mornar and Behrokh Khoshnevis	57	A cutting stock procedure for printed circuit board production
Shouhong Wang	67	Neural networks in generalizing expert knowledge
Azim Houshyar and Bob White	77	Comparison of solution procedures to the facility location problem
Jaejin Jang, Pyung-Hoi Koo and Shimon Y. Nof	89	Application of design and control tools in a multi-robot cell
R. C. Baker and Srinivas Talluri	101	A closer look at the use of data envelopment analysis for technology selection
Ilkyeong Moon and Wonyoung Yun	109	The distribution free job control problem
K. K. Lai and Jimmy W. M. Chan	115	Developing a simulated annealing algorithm for the cutting stock problem
Amar Dev Amar	129	Costs in design of scheduling algorithms: a study on branch-and-bound methodology
Kun-Jen Chung	139	Bounds for production lot sizing with machine breakdowns
Roger J. Gagnon and Chwen Sheu	145	A strategic MIGP model for acquiring advanced technologies

Contents

Nasser Aljaber, Wonjang Baek and Chuen-Lung Chen	169	A tabu search approach to the cell formation problem
Mhand Hifi and Rachid Ouafi	187	Best-first search and dynamic programming methods for cutting problems: the cases of one or more stock plates
Youkyung Won and Sehun Kim	207	Multiple criteria clustering algorithm for solving the group technology problem with multiple process routings
R. G. Kasilingam	221	An economic model for air cargo overbooking under stochastic capacity
Nudtapon Nudtasomboon and Sabah U. Randhawa	227	Resource-constrained project scheduling with renewable and non-renewable resources and time-resource tradeoffs

I Announcement

NUMBER 2

Semra Tunali	243	Evaluation of alternative routing policies in scheduling a job-shop type FMS
Yasser Dessouky and Chell A. Roberts	251	A review and classification of combined simulation
Sekar Vembu and G. Srinivasan	265	Heuristics for operator allocation and sequencing in product-line-cells with manually operated machines
Y.-F. Hung and Q.-Z. Wang	281	A new formulation technique for alternative material planning—an approach for semiconductor bin allocation planning
W. M. Sing and K. P. Rao	299	Knowledge-based process layout system for axisymmetrical deep drawing using decision tables
Kyungchul Park, Sungsoo Park and Wanhee Kim	321	A heuristic for an assembly line balancing problem with incompatibility, range, and partial precedence constraints
C. S. Sung and U. G. Joo	333	Batching to minimize weighted mean flow time on a single machine with batch size restrictions
Robert Cimikowski and Edward Mooney	341	Proximity-based adjacency determination for facility layout
Heungsoon Felix Lee and Samantha K. Schaefer	351	Sequencing methods for automated storage and retrieval systems with dedicated storage

Contents

Rebecca W. Boren, William C. Moor and Mary R. Anderson- Rowland	363	Optimal number of choices per menu for naive users of a computer-answered telephone system
Denis Ridley	371	Optimal weights for combining antithetic forecasts
Der-Baau Perng and Chao-Fan Chang	383	A new feature-based design system with dynamic editing
Dimitri Golenko-Ginzburg and Vladimir Kats	399	A generalized control model for man-machine production systems with disturbances
Muhammad H. Al-Haboubi and Shokri Z. Selim	419	A design to minimize congestion around the Ka'aba
Dijin Gong, Mitsuo Gen, Genji Yamazaki and Weixuan Xu	429	Lagrangian ANN for convex programming with linear constraints
Yong Deok Noh	445	Computational algorithm for an <i>M</i> -stage open tandem queue with blocking and feedback operation
Kelwyn A. D'Souza and Suresh K. Khator	455	System reconfiguration to avoid deadlocks in automated manufacturing systems
C. Alec Chang, Chih-Chung Lo and Kuang-Han Hsieh	467	Neural networks and Fourier descriptors for part positioning using bar code features in material handling systems
P. Gu, S. Balasubramanian and D. H. Norrie	477	Bidding-based process planning and scheduling in a multi-agent system

NUMBER 3

Chien H. Wang, Ram D. Gopal and Y. Alex Tung	497	Diffusion of ladder-type innovations: a study of computer and communications convergence
E. C. Martínez, D. Dujé and G. A. Pérez	509	On performance modeling of project-oriented production
J. Edwards and P. R. Gibson	529	Integrated multi-media computers in the execution of ISO9000 Quality System requirements for document control and training
Ramesh V. Narang	539	Recognition of neutral features for multiple domain analysis
Brian M. Kleiner	545	An integrative framework for measuring and evaluating information management performance

Contents

Subhash Wadhwa, Rahul Caprihan and Satish Kumar	557	Performance of a hysteresis based control strategy for a flexible machine operating under a periodic status monitoring policy
Guoqiang Zhang and Victor Berardi	575	Economic statistical design of \bar{X} control charts for systems with Weibull in-control times
Kuo-Hsiung Wang and Ming-Yi Kuo	587	Profit analysis of the M/E _k /1 machine repair problem with a non-reliable service station
W. C. Ng and J. Leung	595	Determining the optimal move times for a given cyclic schedule of a material handling hoist
Jonathan F. Bard	607	Benchmarking simulation software for use in modeling postal operations
Amjed Al-Ghanim	627	An unsupervised learning neural algorithm for identifying process behavior on control charts and a comparison with supervised learning approaches
Herbert Moskowitz and Kwang Jae Kim	641	QFD optimizer: a novice friendly quality function deployment decision support system for optimizing product designs
Tariq A. Aldowaisan and Lotfi K. Gaafar	657	A framework for developing technical process reengineering designs
Sanjay Sharma and C. M. Sadiwala	671	Effects of lost sales on composite lot sizing
Amjed M. Al-Ghanim and Lonnie C. Ludeman	679	Automated unnatural pattern recognition on control charts using correlation analysis techniques
	I	Announcements

NUMBER 4

Nancy Gautreau, Soumaya Yacout and Réjean Hall	691	Simulation of partially observed Markov decision process and dynamic quality improvement
Kap Hwan Kim	701	Evaluation of the number of rehandles in container yards
Liu Hong, Zeng Guangzhou and Lin Zongkai	713	A system of optimizing nesting with analogical learning mechanism
Yi-Chih Hsieh and Dennis L. Bricker	727	Scheduling linearly deteriorating jobs on multiple machines

Contents

Ali Allahverdi and M. Fatih Tatari	735 Stochastic machine dominance in flowshops
Saeid Motavalli and Anwar-ul Islam	743 Multi-criteria assembly sequencing
Peter A. Huegler and Francis J. Vasko	753 A performance comparison of heuristics for the total weighted tardiness problem
Jerome P. Lavelle, James R. Wilson, Harvey J. Gold and John R. Canada	769 A method for the incorporation of parametric uncertainty in the weighted evaluation multi-attribute decision analysis model
Chih-Chou Chiu, Deborah F. Cook, Jen-Lung Kao and Yu-Chao Chou	787 Combining a neural network and a rule-based expert system for short-term load forecasting
Jong-hwan Kim and Dong-wan Tcha	799 Approximate analysis of finite fork/join queueing networks
Timon Chih-Ting Du and Philip M. Wolfe	811 Overview of emerging database architectures
Mohamed A. Ahmed, Talal M. Alkhamis and Merza Hasan	823 Optimizing discrete stochastic systems using simulated annealing and simulation
Yu Cheng	837 A knowledge-based airport gate assignment system integrated with mathematical programming
<i>Note</i> Myun W. Lee	853 Cubic dream: globalization of IE

NEW ADVANCES IN ANALYSIS OF MANUFACTURING SYSTEMS

Abhijit V. Deshmukh, William F. Fulkerson, David Sinreich and H. P. (Ben) Wang	865 Preface
Valerie Tardif and Mark L. Spearman	867 Diagnostic scheduling in finite-capacity production environments
Kathy A. Paulson Gjerde and Susan A. Slotnick	879 A multidimensional approach to manufacturing quality
Nazario D. Ramirez-Beltran and Tep Sastri	891 Transient detection with an application to a chemical process
Sherman X. Bai and Mohsen Elhafsi	909 Scheduling of an unreliable manufacturing system with nonresumable setups

Contents

James H. Bookbinder and Michael D. Kirk	927	Lane selection in an AGV-based asynchronous parallel assembly line
Shih-Yu Wei, Chih-Chung Lo and C. Alec Chang	939	Using throughput profit for selecting manufacturing process plan
Karim N. Taleb and Surendra M. Gupta	949	Disassembly of multiple product structures
Announcements	I	

